

Patent Claims

1. Apparatus for strapping and/or bundling pallets and articles, having a strapping device from which a packaging band can be passed around the pallets/articles and having a closure device for subsequent tensioning and closure of the packaging band, characterized in that

the strapping device (1) is provided with a guide device (2) on which the closure device (3) is arranged, with the guide device (2) supporting at least some of the weight of the closure device (3).

2. Apparatus according to Claim 1,

characterized in that

the guide device (2) has a linear guide (4), at one of whose ends the closure device (3) is arranged.

3. Apparatus according to Claim 1 or 2,

characterized in that

the closure device (3) is arranged such that it can move on the linear guide (4) by means of a joint element (7).

4. Apparatus according to Claim 3,

characterized in that

a damping element (10) is arranged between the linear guide (4) and the joint element (7) for defined alignment of the closure device (3).

5. Apparatus according to Claim 4,

characterized in that

the joint element (7) has two holes (11), which are arranged offset through 90° with respect to one another, in order to vary the alignment of the closure element (3).

6. Apparatus according to Claim 3 or 4, characterized in that the closure device (3) can pivot only within a predetermined angle range with a maximum 45° about a vertical axis (8b) of the joint element (7).

7. Apparatus according to one of Claims 3 to 6, characterized in that the closure device (3) is connected to the joint element (7) by means of a detachable connection, preferably a plug connection (12).

8. Apparatus according to one of Claims 1 to 7, characterized in that the guide device (2) has a guide element (5) for bearing and supporting the linear guide (4).

9. Apparatus according to Claim 8, characterized in that the guide element (5) is mounted such that it can rotate about a horizontal axis (14).

10. Apparatus according to one of Claims 1 to 8, characterized in that the guide device (2) is connected to the strapping device (1) by means of a bracket (6).

11. Apparatus according to Claim 9 or 10,

characterized in that

a damping element (15) is arranged between the bracket (6) and the guide element (5) in order to support at least some of the weight of the closure element (3) and/or of the guide device (2), and for alignment of the linear guide (4).

12. Apparatus according to one of Claims 7 to 10, characterized in that

the linear guide (4) is in the form of a rail, and the guide element (5) has rollers (13) for guiding and bearing the linear guide (4).

13. Apparatus according to Claim 12, characterized in that

the guide element (5) is arranged inclined so as to prevent the linear guide (4) from moving on its own in the direction of the pallets/articles.

14. Apparatus according to one of Claims 1 to 13, characterized in that

the closure device (3) is an electrical hand-held appliance, preferably a welding appliance with a rechargeable battery.

15. Apparatus according to one of Claims 4 to 14, characterized in that

the damping elements are compressed gas cylinders (10, 15).

16. Apparatus according to one of Claims 1 to 15, characterized in that

the strapping device (1) is provided with a spacer (17) and/or a distance gauge.

17. Apparatus according to Claim 1, characterized in that the guide device (2) is a joint device (16) provided with damping elements (10, 15).

18. Apparatus according to Claim 1 or 2, characterized in that the linear guide (4a) can be moved essentially horizontally, and a further linear guide (4b), which can be moved essentially vertically, is arranged between the end of the linear guide (4a) and the closure device (3).

19. Apparatus according to Claim 18, characterized in that the vertical linear guide (4b) is provided with a damping element (15) in order to compensate for the weight forces which occur.